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Autumn



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*Nature Notes*

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# YOSEMITE

NATURE NOTES

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VOLUME XXXVII - NUMBER 12

DECEMBER 1958

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IN COOPERATION WITH THE NATIONAL PARK SERVICE.



—Anderson

Organized cross-country skiing is an excellent way to enjoy the winter beauty of Yosemite's high country.

# YOSEMITE

## Nature Notes

*in its 37th year of public service. The monthly publication of Yosemite's park naturalists and the Yosemite Natural History Association.*

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### TIOGA PEAK

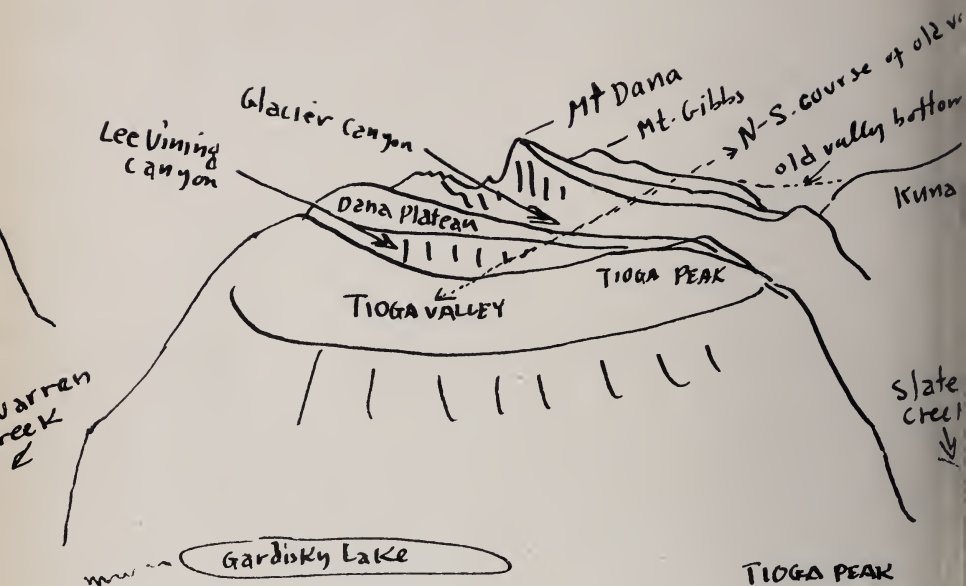
**By William Neely, Ranger-Naturalist**

When climbing our Tuolumne mountains it is difficult to remember that they have not been pushed up individually, but rather that they are remnants of flat land that has been cut away. Here we hike much of the time in glacier-scoured, glacier-eroded, glacier-sculptured topography and see the new surfaces, the work of ice chisels and ice tools, the signs of action and tremendous grinding forces. But there is that region above that is untouched by glacier work, a quiet and ancient region.

Climbing Tioga Peak this past summer we followed the glacier canyon, up to the glacier-formed lake (Meadows Lake), and up the clinking gneisses and quartzites with their rusty colors, and on to the top. Here I can to prowl around while the rest of the party was busy with lunch, and while alone and apart, the antiquity of the old mountain spoke strongly.

Glaciers have never been up here. During glacial ages the ice gathered in hollows on slopes and ground their way down valleys. The mountain tops, if high enough, were spared and stood above the Tuolumne ice field as isolated peaks or *nunataks*, being gnawed away on all sides. Cockscomb and Cathedral peaks are the spiry fragments of once fatter mountains. The ice, working easily in the vertical joint planes and cracks of that area, cut away and plucked out slabs and great rocks until just a few thin fins of rock remained above the ice, as they remain today. Tioga Peak was more spared and the top shows a little of what once was before the great Sierran uplift reached its present elevation. For instead of being a mountain top Tioga Peak is the bottom of an ancient valley, 60,000,000 years old.





In a museum we can look at charts and plaster relief models of the "Broad Valley Stage" of Sierran landscapes, but standing on one or in one the geologic history is strictly first hand — or, better, first foot.

As the illustration shows, three or four acres of the old valley remain on the top, running roughly north and south. This rises gently on either side a few feet. Then the valley is suddenly left hanging above the precipitous Lee Vining Canyon on one side where the steep Sierra escarpment allowed rapid gulching of streams and erosion by the Lee Vining glacier. On the west is Slate Creek valley, another glacial pathway; to the north is Gardisky Lake; and to the east the mountain was

sliced vertically by Warren Creek Valley and its once-river of ice. The little Tioga Peak Valley has been captured by all these canyons, leaving only a vestige 300 feet long and perhaps 700 feet wide.

If I could but hide the new canyons and arrange a picture of the ancient system! I lay down on the shale quartzite ground and sighted across to Mt. Dana. The Lee Vining Canyon now was out of view, and then I saw how my valley stretched itself across the Glacier Canyon of Dana to the slopes of the peak, and yet beyond on the slope of Gibbs and across Spillway Creek to Kuna Crest! No longer did I see Dana as a peak but rather as the ancient slope of a valley, the remain-



Mt. Dana, Canyon, and Glacier.

—McCrary NPS

Cathedral Range.

—NPS



half of a gently rolling ridge, and the same with Mt. Gibbs. The mountains became no longer mountains but parts of a harmonious system. Not a confusion of peaks or a "tossing sea" of peaks as mountain books like to say about the view, but rather a pattern of gentle hills and plains, with the imagination filling in the glacial gaps and hollows. With a new eye we see our mountains not as chaos but of order. By lying on the ground we get a beetle's-eye view of giant concepts.

Muir saw glaciers. He traced the work of vast ice waves and ice rivers, but his vision was so impressed by their magnitude that he failed to see entirely, or at least didn't describe the older, gentler beauty of the ancient uncut stone before the jewellers cut the facets.

At my feet was another wonder . . . the sign of long-continued frost working called *polygonboden*. By this time the party, finished with eating and ready to look at scenery, had come down to my valley to see what I was doing, lying on the ground and sighting this way and that and writing notes. They saw the grand scale and pattern of valleys but their feet nearly trampled out a thousand years of frost artistry, for at the bottom of the "valley" where it was

level and gravelly was a perceptible reticulation — a network of bits of rock and sharp gravel and slates — a network of polygons. In the arctic in Siberia, Alaska, Lapland, the polygons are of huge size, several feet high and often yards across, but there they were small — five to eight inches across and the edges raised about half inch, but revealing the same work of frost, the sorting out of small from large stones into little ridges of ground as though a stone fishing net had been laid down by a giant. This delicate tracery, seldom seen in our climates except on the very highest summits which have been exposed for thousands of years to freezing and thawing, is another sign of our arctic climate on Tuolumne mountain tops, and I thank Captain Sharsmith, the good naturalist who once showed it to me, for here is the value of a naturalist and guide — to show what is apparently ordinary ground and to make poetry a meaning of it and of the earth and its forces — to show valleys that no longer exist, to fill in by imagination and to turn into meaningful harmony what may be just "rock piles" of crags. To turn chaos into order, to turning fear of strange places into delight and familiarity and understanding.

Kuna Crest.

—Anderson





## A THUMBNAIL SKETCH OF YOSEMITE'S HISTORY

By Dwight Cushman, Ranger-Naturalist

The development of the Wawona Pioneer Village, now underway, will provide an interesting center for interpreting the human history of the Yosemite area. In addition to beautiful scenery, Yosemite has produced a varied and interesting group of human beings. Let's take a quick look at a few of them.

**Captain Joseph Walker** led an expedition across the High Sierra in 1833, perhaps looking down into Yosemite Valley, and observing the giant sequoias. His route was probably close to the present Tioga Road.

**Major James D. Savage** was the legendary "White Chief of the Mariposa Hills", with wide influence among the Indians. He led the famous Mariposa Battalion during the Indian War of 1851 which made the first descent to the floor of Yosemite Valley.

**Chief Tenaya** was the leader of the Sierra Miwok Indians who made Yosemite Valley their home. Tenaya Lake commemorates his love for his mountain homeland.

**James M. Hutchings** led the first party of sightseers into Yosemite Valley in 1855. He made the Valley his home until he was killed on the Big Oak Flat Road in 1902.

**Galen Clark** established "Clark's Station" at Wawona in 1857 and became the first guardian of the Yosemite Grant after its establishment by Congress and President Lincoln in 1864. Many visitors came over the Chowchilla Mountain road from Mariposa to Clark's Station by stagecoach and then went on horseback to the Mariposa Grove or Yosemite Valley.

**The Washburn Brothers — Julius, Henry, John and Ed** — did much to make the Mariposa Grove accessible by building roads, operating stage lines and providing hotel accommodations at Wawona from 1866 to 1903. The important part they played in Yosemite's history will be told at the Wawona Pioneer Village, which is located near the Wawona Hotel buildings which they built.

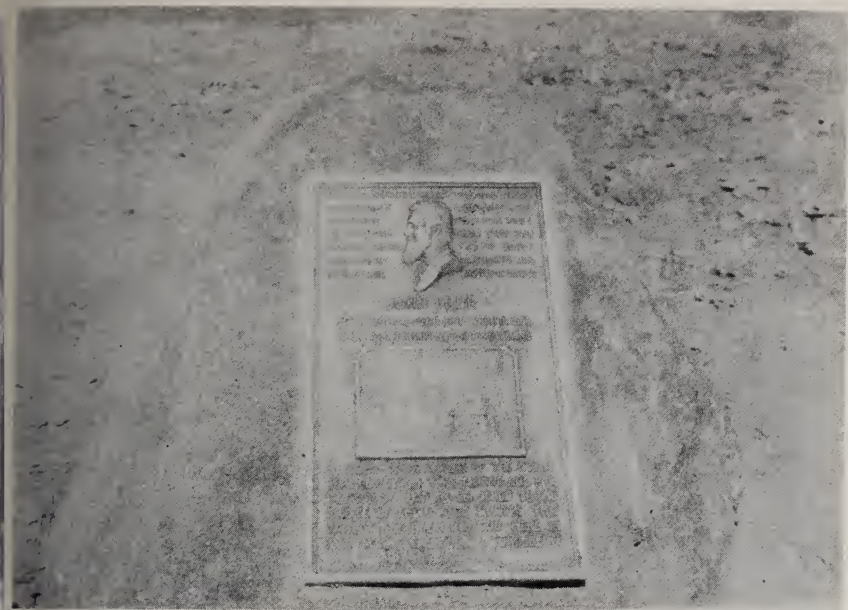
—Yosemite Museum





Director Mather and Superintendent Lewis talking over an early Yosemite problem.





—Anderson NPS

**John Muir** made his first trip to Yosemite in 1868, the beginning of a lifelong interest in the Sierra. His powerful pen did much to awaken the public to the need for protecting our heritage.

**Captain Abram E. Wood**, the first Acting Superintendent of Yosemite National Park, arrived with federal troops to administer the park in 1891. Cavalry patrolled the park from their headquarters at Wawona, later moving to Yosemite Valley (in 1906) and continuing the effective army administration until 1914.

**Stephen T. Mather**, a self-made businessman, became the first director of the National Park Service in 1916. He did much to aid the development of our present system of National Parks.

**Washington B. Lewis** was the first in a series of civilian superintendents of Yosemite National Park after the creation of the National Park Service in 1916.

**Sequoia** probably never had the pleasure of seeing the giant trees which were named after him. He was a Cherokee Indian who taught his people to read and write—one of the twelve men in human history who have invented a complete alphabet.

The history of Yosemite is the story of America during the gold-rush years. The Indians enjoying the freedom of their mountain homes found themselves overrun by gold-seekers with inevitable conflicts developing. Explorers, soldiers, inn-keepers, naturalists — were all captured by the scenic beauties of Yosemite and helped to develop the National Park as we know it. Historical values and traditions must be preserved for the future as well as our scenic assets. The Wawona Pioneer Village will become one of the major attractions for visitors during the years ahead.



## A NEW TYPE OF CAMPFIRE PROGRAM IN YOSEMITE

By Jack F. Fry, Ranger-Naturalist

This past summer at Bridalveil Creek Campground, campers attended a campfire talk entitled "U.S. Park Ranger — Tools of his Trade". The purpose of the program was to acquaint the park visitor with the duties performed by the Park Ranger and the "tools of his trade". Park Rangers Frank Betts (who proposed and coordinated the programs), John Townsley, and Richard Stenmark described and demon-

strated equipment with which they work, using effectively the technique of audience participation.

Among the winter gear shown were cross country skis, equipment for measuring the snow pack, and a toboggan for the rescue of injured skiers. A demonstration of the two-way radio was given, using a portable set and a receiver-transmitter mounted in one of the park pickup trucks.

Fire fighting equipment was d



—Anderson

Rescue sleds and equipment.

played and demonstrated. A bear trap was hauled in and was described in detail. The younger generation was fascinated and delighted when the trigger was sprung and the door dropped into place with a resounding crash. The trap provided an excellent opportunity for explaining National Park Service policies regarding bears and other wild animals.

Most of the campers attending the program were impressed by the thorough way in which a ranger's truck is equipped. In addition to visible equipment such as a radio, red light, etc., the ranger carries a collapsible stretcher, first aid equipment such as splints, bandages, etc., blankets for injured persons, an accident investigation kit containing a camera, scales, tape measure, and other essential items. Also to be found is equipment for use in law enforcement such as citation and warning books, a hard hat for fire fighting or other dangerous work and a pack containing food rations (similar to, but more tasty than "K" rations), a change of socks, a sleeping bag, and a first aid kit. Thus if the ranger sees a fire off of the road he can park his truck, shoulder his pack, pick up an axe, shovel and other fire fighting equipment (also carried in the truck) and be gone for several days if necessary.



—McIntyre NPS

Stokes litter in use on rescue of seriously injured climber.

Rescue techniques were described, a few rescue and search experiences were related, and much of the equipment used in such work was shown.



On August 19 and 20, 1958, a mountain rescue team of nine park rangers effected the rescue of William Beeghley, age 17, from a most hazardous position on a narrow ledge high on the rock cliffs in Yosemite National Park. The site of the rescue was 1500 feet above the Yosemite Valley floor and at a point 1700 feet directly below the rim of Glacier Point overlook. The rescue and evacuation was accomplished only through the calculated exposure of the lives and safety of members of the rescue team and it required a superb demonstration of the most skilled techniques of rock climbing and mountain rescue practices.

—Betts, N





his included nylon climbing ropes and other climbing gear, a "bull horn" (an electronic megaphone for communicating with persons marooned on cliffs), a resuscitator for reviving drowning and heart attack victims, a Stokes litter (a basket-like stretcher for transporting injured persons from cliffs), and a cart equipped with hand brakes and bicycle wheels. The Stokes litter can be

placed on this cart so that an injured person may be wheeled, rather than carried, down a trail.

Although programs such as this are regular features in some other National Parks, most campers in Yosemite have not witnessed them before. Visitor response leads us to believe that they will be a popular part of campfire programs in the future.



—Bullard NPS

for 3½ days, little Shirley Ann Miller was returned safely to her parents after a search which involved over 100 men.

## OUT OF YOSEMITE'S PAST

## A One Picture Story



—Yosemite Museum

Opening of the Mariposa - Yosemite Valley - Wawona Road in 1875.

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Half Dome from Glacier Point.

—Doris Frazier

